

=====

Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2010; month=1; day=5; hr=10; min=29; sec=17; ms=316;]

=====

Reviewer Comments:

<130> U 015859-4

<140> 10/542,937

<141> 2006-09-08

<160> 259

<150> ES200300206

<151> 28.01.03

<150> ES200302671

<151> 17.11.03

<210> 1

<211> 60.000

<212> polynucleotide

<213> human

<220>

<221> gene

<223> rLDL

<400>

Numeric Identifier <160> comes after <130>.

Invalid response for Numeric Identifier <211> as it represents the total number of bases in the sequence please remove the dot in the number (60.000) should be as 60000 and Numeric Identifier <212> which represents Type of the sequence for example DNA/RNA or PRT.

Missing data is Numeric identifier <400> which contains the SEQ ID# to end the sequence. as <400> 1.

Please make all necessary changes.

Application No: 10542937

Version No: 3.0

Input Set:

Output Set:

Started: 2009-12-11 10:32:20.365
Finished: null
Elapsed: null
Total Warnings: 155
Total Errors: 636
No. of SeqIDs Defined: 259
Actual SeqID Count: 136

Error code	Error Description
E 248	Order Sequence Error <160> -> <150>; Expected Mandatory Tag: <210> in Header
E 287	Invalid WIPO ST.2 date format; Use (YYYY-MM-DD) in <151>
E 287	Invalid WIPO ST.2 date format; Use (YYYY-MM-DD) in <151>
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID
E 310	Invalid sequence type in <212> in SEQID: (1)
W 402	Undefined organism found in <213> in SEQ ID (1)
E 201	Mandatory field data missing in <400> SEQID: (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (61)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (135)

Input Set:

Output Set:

Started: 2009-12-11 10:32:20.365
Finished: null
Elapsed: null
Total Warnings: 155
Total Errors: 636
No. of SeqIDs Defined: 259
Actual SeqID Count: 136

Error code	Error Description
E 323	Invalid/missing amino acid numbering SEQID (1) POS (140)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (145)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (150)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (155)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (160)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (165)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (170)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (175)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (180)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (185)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (190)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (195)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (200)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (205)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (210)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (215)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (220)
E 323	Invalid/missing amino acid numbering SEQID (1) POS (225) This error has occurred more than 20 times, will not be displayed
E 342	'n' position not defined found at POS: 35360 SEQID(1)
E 342	'n' position not defined found at POS: 35361 SEQID(1)
W 333	tabs used in amino acid numbering SEQID (1)
E 330	Invalid protein , found in SEQID(1) POS (354) Invalid Protein:Gys

Input Set:

Output Set:

Started: 2009-12-11 10:32:20.365
Finished: null
Elapsed: null
Total Warnings: 155
Total Errors: 636
No. of SeqIDs Defined: 259
Actual SeqID Count: 136

Error code	Error Description
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
W 333	tabs used in amino acid numbering SEQID (1)
E 310	Invalid sequence type in <212> in SEQID: (2)
W 402	Undefined organism found in <213> in SEQ ID (2)
E 257	Invalid sequence data feature in <221> in SEQ ID (2)
E 201	Mandatory field data missing in <400> SEQID: (2)
E 310	Invalid sequence type in <212> in SEQID: (3)
W 402	Undefined organism found in <213> in SEQ ID (3)
E 257	Invalid sequence data feature in <221> in SEQ ID (3)
E 201	Mandatory field data missing in <400> SEQID: (3)
E 310	Invalid sequence type in <212> in SEQID: (4)
W 402	Undefined organism found in <213> in SEQ ID (4)
E 257	Invalid sequence data feature in <221> in SEQ ID (4)
E 201	Mandatory field data missing in <400> SEQID: (4)
E 310	Invalid sequence type in <212> in SEQID: (5)
W 402	Undefined organism found in <213> in SEQ ID (5)

Input Set:

Output Set:

Started: 2009-12-11 10:32:20.365
Finished: null
Elapsed: null
Total Warnings: 155
Total Errors: 636
No. of SeqIDs Defined: 259
Actual SeqID Count: 136

Error code	Error Description
E 257	Invalid sequence data feature in <221> in SEQ ID (5)
E 201	Mandatory field data missing in <400> SEQID: (5)
E 310	Invalid sequence type in <212> in SEQID: (6)
W 402	Undefined organism found in <213> in SEQ ID (6)
E 257	Invalid sequence data feature in <221> in SEQ ID (6)
E 201	Mandatory field data missing in <400> SEQID: (6)
E 310	Invalid sequence type in <212> in SEQID: (7)
W 402	Undefined organism found in <213> in SEQ ID (7)
E 257	Invalid sequence data feature in <221> in SEQ ID (7)
E 201	Mandatory field data missing in <400> SEQID: (7)
E 310	Invalid sequence type in <212> in SEQID: (8)
W 402	Undefined organism found in <213> in SEQ ID (8)
E 257	Invalid sequence data feature in <221> in SEQ ID (8)
E 201	Mandatory field data missing in <400> SEQID: (8)
E 310	Invalid sequence type in <212> in SEQID: (9)
W 402	Undefined organism found in <213> in SEQ ID (9)
E 257	Invalid sequence data feature in <221> in SEQ ID (9)
E 201	Mandatory field data missing in <400> SEQID: (9)
E 310	Invalid sequence type in <212> in SEQID: (10)
W 402	Undefined organism found in <213> in SEQ ID (10)
E 257	Invalid sequence data feature in <221> in SEQ ID (10)
E 201	Mandatory field data missing in <400> SEQID: (10)

Input Set:

Output Set:

Started: 2009-12-11 10:32:20.365
Finished: null
Elapsed: null
Total Warnings: 155
Total Errors: 636
No. of SeqIDs Defined: 259
Actual SeqID Count: 136

Error code	Error Description
E 310	Invalid sequence type in <212> in SEQID: (11)
W 402	Undefined organism found in <213> in SEQ ID (11)
E 257	Invalid sequence data feature in <221> in SEQ ID (11)
E 201	Mandatory field data missing in <400> SEQID: (11)
E 310	Invalid sequence type in <212> in SEQID: (12)
W 402	Undefined organism found in <213> in SEQ ID (12)
E 257	Invalid sequence data feature in <221> in SEQ ID (12)
E 201	Mandatory field data missing in <400> SEQID: (12)
E 310	Invalid sequence type in <212> in SEQID: (13)
W 402	Undefined organism found in <213> in SEQ ID (13)
E 257	Invalid sequence data feature in <221> in SEQ ID (13)
E 201	Mandatory field data missing in <400> SEQID: (13)
E 310	Invalid sequence type in <212> in SEQID: (14)
W 402	Undefined organism found in <213> in SEQ ID (14)
E 257	Invalid sequence data feature in <221> in SEQ ID (14)
E 201	Mandatory field data missing in <400> SEQID: (14)
E 310	Invalid sequence type in <212> in SEQID: (15)
W 402	Undefined organism found in <213> in SEQ ID (15)
E 257	Invalid sequence data feature in <221> in SEQ ID (15)
E 201	Mandatory field data missing in <400> SEQID: (15)
E 310	Invalid sequence type in <212> in SEQID: (16)
W 402	Undefined organism found in <213> in SEQ ID (16)

Input Set:

Output Set:

Started: 2009-12-11 10:32:20.365
Finished: null
Elapsed: null
Total Warnings: 155
Total Errors: 636
No. of SeqIDs Defined: 259
Actual SeqID Count: 136

Error code	Error Description
E 257	Invalid sequence data feature in <221> in SEQ ID (16)
E 201	Mandatory field data missing in <400> SEQID: (16)
E 310	Invalid sequence type in <212> in SEQID: (17)
W 402	Undefined organism found in <213> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
E 201	Mandatory field data missing in <400> SEQID: (17)
E 310	Invalid sequence type in <212> in SEQID: (18)
W 402	Undefined organism found in <213> in SEQ ID (18)
E 257	Invalid sequence data feature in <221> in SEQ ID (18)
E 201	Mandatory field data missing in <400> SEQID: (18)
E 310	Invalid sequence type in <212> in SEQID: (19)
W 402	Undefined organism found in <213> in SEQ ID (19)
E 257	Invalid sequence data feature in <221> in SEQ ID (19)
E 201	Mandatory field data missing in <400> SEQID: (19)
E 310	Invalid sequence type in <212> in SEQID: (20) This error has occurred more than 20 times, will not be displayed
W 402	Undefined organism found in <213> in SEQ ID (20) This error has occurred more than 20 times, will not be displayed
E 257	Invalid sequence data feature in <221> in SEQ ID (20)
E 201	Mandatory field data missing in <400> SEQID: (20) This error has occurred more than 20 times, will not be displayed
E 257	Invalid sequence data feature in <221> in SEQ ID (21) This error has occurred more than 20 times, will not be displayed
E 249	Order Sequence Error <223> -> <210>; Expected Mandatory Tag: <400> in SEQID (136)

SEQUENCE LISTING

<110> Mata Lopez, Pedro
 Mozas Alonso, Pilar
 Pocovi Mieras, Miguel
 Tejedor Hernandez, Diego
 Mallen Perez, Miguel
 Alonso Karlezi, Alberto
 Reyes Leal, Gilbert
 Castillo Fernandez, Sergio
 Martinez Martinez, Antonio

<120> Method for detecting LDL receptor gene mutations associated with

<130> U 015859-4
 <140> 10/542,937
 <141> 2006-09-08
 <160> 259
 <150> ES200300206
 <151> 28.01.03
 <150> ES200302671
 <151> 17.11.03
 <210> 1
 <211> 60.000
 <212> polynucleotide
 <213> human
 <220>
 <221> gene
 <223> rLDL
 <400>

```

aaaagatggt gtatccattc aatggaacat tatttggcct ttaaaaggaa ggaaattctc 60
actgagcata gtgggtttatg cctgtaatcc cagcactttg ggaggctgag gcagggggga 120
gggggcggtt cacctgaggt caggagttca agaccagcct ggccaacatg gtgaaatccc 180
gtctctacta aaaatacaaaa aaaattagcc gagtgtggtg gcacacacct gtaagccagg 240
ctacacggga gactgaggca ggagaatcgc tggaaacccg gaggcagagg ctgcagagag 300
ccgagattgc gtcactgcac tccagcctgg gtgacagagc gagactcttg tcttaaaaaa 360
aaaaagaagg aaggaaggaa ggaaggagg aagtcttgac acaggctcca acacagatgt 420
tatgctcagt gaaataagcc agacatgaaa ggacaaatac tgcctgatct cattcataag 480
aggctccctag aattgtagaa tgggtgtgtgc cacgggctgg gagggggtgt ggccagagtt 540
tcagtttggg aagttgagaa tgttctggag atggatggcg gtagtggtgg ttgcacaact 600
gtgtgaatgc gcttaatgcc tctgaattgt gcagttacaa gtggttcgga tgggccgggc 660
gcggtggctc atgcctgtaa tcccagcact ttgggaggcc gaggcaggtg gatcatgaga 720
tcaggagatc gagaccatcc tggctaacac ggtgaaaccc catctctact aaaaaataca 780
aaaaattagc caggcatggt ggtgggcacc tgtagtccca gctacttggg aggcggaggc 840
aggagaatgg cgtgaacacg ggaggcagaa cttgcagtga gccgagatca cgccactgca 900
ctccagcctg ggcgacagag tgagactccg tctaaaaaaa aaaaagtggg taagatgggc 960
cgggcatggg ggatcacgct tgcaatccca acactttggg aggctgaggt ggggtgattac 1020
gaggtcagga gttcgagacc agcctgacca ccatggtgaa acccgtctc tactaaaagt 1080
acaaaattag cggggtgtcg tggcacacgt ctgtaatccc agctactggg gaggctgagt 1140
tgggaggatc acctgagccc agggagggtc aggctgcagc aagccatgat tgcaccactg 1200
cactccagcc tgggtgagag agtgagaccc tgtctccaaa caaacacaca tgaaaaacag 1260
atTTTTTTTg ccagggtgcag tggctcacac ctgtaatccc agcactttgg gaggccaaagg 1320
cgggtggatc acgaggtcag gtgactgaga gcacctgggc taacacggtg aaaccctggc 1380
tctactaaaa atacaaaaat ttagccgagc atggtgggtg gcacctgtag tcccagctac 1440
tcgggagggt gaggcaggag aatggcatga acctgggagg cggagcttgc agtgagctga 1500
gatcacgcca ctgcactcta gcctggggga cacagcaaaa ctgtctcaa aaaaaaaaaa 1560
aaggtTTTTt taatttaaaa aggaaagaaa aggagagtg cgtgtggca ggcacctagc 1620

```

cctgtccagc	gcaccctgag	acagggatga	tgtctcctcc	ttgacctaa	accacaagtt	1680
ctaaccaatt	caaccgagga	cagagcccca	attccaggca	gggcaatggg	gtcgccttgt	1740
gaactaagat	gcagatggag	aagagcagac	acagacacag	gtcttggggc	ccctgcaggg	1800
gtttctcact	ggctttttcc	ccctggattc	ctatgggttc	tggggaacag	agttaggtcg	1860
gctggcaaga	cagatgcatg	aggtctgtggc	gcccttgaca	ttgagccgga	gggccagagt	1920
tcgtcattgc	tgacgcagag	aagctgggag	ccaaggttag	ccagatggtt	tggaggagtt	1980
ttaaacaatc	ttttcttttc	tttctctttc	catctgtctg	tccttctttc	ctcccttcct	2040
gccccctttc	ttttctcctt	tctttccttc	ctctctcctt	cctccctttt	tttctttttt	2100
tttggttttc	ttttgtatt	agtattatta	tttttagac	agggtcttgc	tctgttgccc	2160
aggctggagg	gcagtggcac	gatcacagct	cagtacacce	tcaaccttct	gggttcaagc	2220
aatcctcctg	ccttggcctc	ccaggtagct	gggactacag	gcgtgtgcca	ccacacctgg	2280
ttaatttttt	ttttttttga	gacggagtct	tgtctgtca	cccaggctgc	agtgcagtgg	2340
cgtgatctcg	gtcactgca	acctccacct	cccgggttca	agcgatcctc	ctgcctcagc	2400
ctcccgagta	gctgggatta	cacgcgcccc	ccaccaagcc	cggctaattt	ttttattttt	2460
agtagagaca	gagtttcacc	acgttggcca	ggctcgtctc	aaactcctga	cttagtgatc	2520
taccacctt	ggcctctcaa	agtgtgagg	ttagaggcgt	gagccaccat	ggcagccaa	2580
ttttgtatt	tttagtagag	atggggtttc	accatgttgg	tcagtctggg	ctcgaactcc	2640
tgacctcaag	tgatccacct	gcctcagcct	ccaaagtgc	tgggaattaca	ggcatgagcc	2700
accgcgcccc	gcccctcttaa	ccatttttaa	gtgcacagtt	cagcagcatt	aagcacattc	2760
acattgttgt	gcaaccatca	gcccccgctc	atctccagct	ttctcttttt	ttttgttgt	2820
tttgagacag	ggtcttactc	tctcgcccag	tatagagtgc	agtggtgccg	tcttggctcg	2880
ctgcaacctc	tgccctccag	gttcaagcta	ttctcctgcc	tcagtctccc	cagtagctgg	2940
gattacagac	acacatcacc	acgccttgct	aattattttg	catttttagt	agagatggtg	3000
tttcaccata	ttggccaggc	tgatcttgaa	ctcctggcct	caagtgggtc	gtccaaaact	3060
gctgagatta	cagccgtgag	ccactgctcc	cagccatctg	cacctttctc	atcttcccaa	3120
atgtaactat	gtccccgtga	aacactcact	ccccattcca	cctccccagc	ccctggcacc	3180
ccccatttta	ttctggtgct	aggggaattt	caaaccaggc	aagtctcaac	acatgctcga	3240
gtgtaagaac	cagcccacag	cctcggtccc	taatcacggg	caaaccagaa	ttctactcca	3300
ggttctactc	tgtgaatctg	ctttctgtga	atctgttact	ctggggaccg	cctataagtt	3360
gaatcctaca	gtgtctccac	ttcagtgact	ggcttatttc	acttttctcc	tctttattta	3420
tgagacaaaa	tttcgctctt	gttgcctcagg	ctggaatgca	atggcgtgat	ctcggctaata	3480
ttttttgtat	ttttagtaga	ggcgggggtt	caccatgttg	gccaggctgg	tctcgaactc	3540
ctgacctcag	acgatccact	ttggccttcc	aaagtgtctg	gattacaggc	ggggcccacc	3600
tttctcctct	taatcacaca	ggtaatccat	acatacgaca	ttcttttttt	tttttgacac	3660
ggagtcttac	tctgtcacct	aggtggaggt	gcagtggcgc	aatcttggct	cactgcaacc	3720
tctgcctccc	aggatcaagc	aattctcctg	cctcagcctc	ctgagtagct	gggattacag	3780
gtaaccatca	ccacacctgg	ctaaattttg	tatttttagt	agagacgggg	tttcaccacg	3840
ttggccacgc	tggatttgaa	ctcctggcct	caagtgatct	tcctgtctcg	gtctcccgaa	3900
gtgctgggat	tacaggaatg	agccactgtg	cccggccaat	acgacatctg	tgcaatgaag	3960
tgcaacatat	aagacacctt	tccccacccc	actgccccca	ccaccgcccc	cacgccccca	4020
cccccatctc	cagatcagaa	cctggggctg	tgcaatttta	aacgttgtag	ccacttgcta	4080
cttgggtagt	tgaagttcag	tctcagccag	gttggagtcc	tggactctgg	ccctcttttt	4140
atttttattt	tttatttttt	tttgagacag	agtctcgctc	tgtcgcccag	actggagcgc	4200
agtgggtcga	tctcggtcca	ctgcaagctc	tgctcctga	gttcacgcca	ttcccccgcc	4260
tcagcctccc	gagcagctgg	gactacaggc	gcccgcaccc	acaccggtct	aatttcttgt	4320
attttttagt	agagatgggg	tttcacctg	ttagccagga	tggctctagat	ttcctgacct	4380
tatgatccgc	ctgcctcggg	cctcccaaag	tgtctgggatg	acaggagtga	gccaccgcgc	4440
cgggctctt	tttttttttt	tagacagtct	ctgtcaccga	ggctagagtg	cgatggtgcg	4500
atctcggtct	actgcaacct	ccaccttccg	ggttcaagcg	attctcctgc	ctcagcctcc	4560
tgagtatctg	ggattacagg	tgcctgtgac	cacgcccggc	tgatttttgt	attttttagta	4620
gagacggggg	ttcaccacat	tggtcaggct	agcctcaaac	tcctgacccc	gtgatccttc	4680
cgcctcagcc	tcccaaagtg	ctgggattac	aggactctgg	cccatcttgg	ctgctgccaa	4740
tgtccttcct	tctatcttgg	tttttccaca	gttacgcaca	tgccagataa	cggcgagtct	4800
gttccccagc	aactgcaacg	gatctgcccc	ccactgggaa	atggaagacc	ttgcagccca	4860
ggtcttttga	gaccaagatt	agattgtggg	caacaaacac	ctgaccttgg	ccttttgaac	4920
catcagccat	gtcagctaaa	ataaaagcag	aatctggctg	ggcgcagtgg	ctcacgcctg	4980
taatcccagc	actttggggg	gctgaggtgg	gcagaccacc	tgaggtccgg	cgttctagac	5040

cagcctgacc	aatatgatga	aacccccgtct	ctactaaaca	tacaaaaaatt	agctgggcat	5100
gggtggcgggc	acctgtaatc	ccagctactc	gggaggctga	ggaaggagaa	ttgcttgaac	5160
cctggaggca	gaggttgag	tgagccgaga	ttgcgccact	gcactccaac	ctggactgca	5220
gaacaagact	ctgtcccaaa	agcagataaa	taaaaataaa	taaaaataaa	aatatggccg	5280
ggcatggtgg	ctcacacctg	taatcccaac	actgggaaga	tgaggcgggc	agatcacgag	5340
gtcagggatt	cgagaccagc	ctggccaaca	tggtgaaacc	ccgtctctac	taaaaaataca	5400
aaaattagcc	gggcatgatg	ctgcatgcct	gtaatcccag	ctactctgga	ggctgaggca	5460
ggagaatcgc	ttcatcccgg	gaggtggagc	ttgcagtga	ctgagatcgc	gccactgcac	5520
tctagcctgg	gcaaaagagt	gagactccat	cgcaagaaaa	aaaaaaaaaa	aagctgcaag	5580
ctctgtctcc	cgggttcaag	tgattctcct	gcctcagcct	tccaagtage	taggattata	5640
cgcgcccgcc	accatgcctg	gctaattttt	gtatttttag	tagagatgcg	gtttcaccat	5700
gttggccagg	ctggtctcaa	actcctgacc	tcacgtgatc	cacctgcctc	ggcctcccag	5760
agtgtctggga	ttacaggtgt	gaacccctgc	gcctggccaa	gaaaagttgc	ttgaatgaag	5820
agtaaataga	agaccagaa	agaaatgatt	cgccgagga	aggtcacaga	agcaacgtaa	5880
tcaagatgga	aatctgactc	ttcctaattt	tgccagact	tcccatccct	ccaaagcttt	5940
ccagactctt	ccagatcatt	ctagatattt	ccagaaatca	ttcgtgaaat	ctaactagga	6000
gtagtctgta	aacaatgtgt	ttcacacaga	tacaattcat	aaacgatgag	aagacaagga	6060
cacttcatga	atgaaatttt	tacggccggg	tatgttggct	cacgcctata	atcccaggac	6120
tttggaagac	ccaggcagga	ggattgcttg	agtcaggag	ttcaagacca	gtctgggcca	6180
catagtgaga	ccctgtcgct	acaaaaaatt	taaaaattag	gtagatatgg	tggtgtatgc	6240
ctctagtttt	agcttttttg	gaggtgaag	caggaggatc	tcttgagccc	aggaggttga	6300
gctgcaatga	gctacgattg	aactactaca	ctccagtctg	ggtgacagag	aaagaggctg	6360
cctcaaaaaa	ataaaaaata	aaaaataagg	ccggacgcgg	tggtcacgc	ctgtaatccc	6420
agcacttttg	gaggtctggg	tgggcagacc	acgaggtcag	gagatcgagg	ccatcctggc	6480
caacatgatg	aaacccctgtc	tctactgaaa	acacaaaaat	tagctgggcg	tggtggcgta	6540
tacctgtaat	cccagctact	cgggaggctg	aggcaggaga	atcacttgaa	ccaggagatc	6600
agaggttgca	gcgagaggag	attgtgccac	tgcatccag	cctggcaaca	gagcaagact	6660
ccgtctcaaa	aaagaaacaa	caacagcaac	aacaacaaaa	aaaacataaa	aaagttcggg	6720
cacggtggct	cacacctgta	atcccagcac	tttgggaggc	caaggtgggt	agatctcttg	6780
aggtcaggag	ttcaagacca	gcctggccaa	caaacatggg	gaaaccccg	ctctactaaa	6840
aatacaaaaa	gtagccgggt	gtagtccag	ctactcgga	ggctgaggca	ggagaatcgc	6900
ttcaacctgg	gagatggaag	ttgcagtga	ctgagattgc	gccactgggt	gacagagtaa	6960
gactcttgtc	tcaaaaaaaa	aaaaagaaag	aaagttta	ttaatgattc	aaataatgac	7020
ctgctcgaga	gataaatata	aagtctaacg	taagaggtgt	atactttttc	ctctgtcctg	7080
ctgtcctcgc	cccacctcac	cccaagtccc	aacctgattg	atcagtctcc	tttccctctg	7140
gtagccccc	tcccatgacc	gaaccgagaa	gtcatgcacc	cgcataagaa	ctctaatttt	7200
ttttttcaaa	gtcttctcac	tgccccaaaa	atagtttctt	tcattcccag	gggatgtgaa	7260
agtgtctctc	ccaattttat	ttcaacctcc	cagcgttcca	cacatatgcc	ttgcctcagc	7320
cagctttcac	tgatctgcca	tttccacctc	ggcgtgctc	ctacctgcgg	aaatcctgtc	7380
catccatagt	ctgatttctg	ttgttccaga	acattctttt	ttttttcccc	tggaacattc	7440
tttaagatac	ctcaataaat	gaaaccagag	ggtatagagc	agtatgaatg	ggtactacaa	7500
tgtacagggg	gaaatggagg	ggaatatgat	atactctcct	ccttgtatat	gcttagaatg	7560
ttctagaagg	atatgcttaa	aaggtagca	gtcctggcca	ggcgtggtgg	ctcacgcctg	7620
taatctcagc	actttgggat	gccaacgcgg	acggatcaca	aggtcaggag	ttctagatca	7680
gcctgaccaa	tatagtga	cctcatcttt	actaaaaata	caaaaattag	ccgggtacgg	7740
tggcatgtgc	ctgtagtccc	agctactttg	gaacctgagg	caggagaatc	gcttgaactc	7800
gggaggcaga	ggttgcagtg	agccgagact	gtgccattgc	actgcagcct	gggtgacaga	7860
acaggactcc	gtctcaaaaa	aaaacaaaaa	aggtcagcag	tcttaattgt	cagagggcag	7920
gggacctgca	tgggatggag	gtttttccat	gtgtccacct	tttgagccct	tttgcttttt	7980
ttttttaaat	ctttttattg	tagcaaaaata	gatataaaat	ttaccctttt	tttttttgag	8040
acagggtctc	actctgttgc	ccaggttgga	gtgcagtggc	atgatcttgg	ctcactgcag	8100
cctctgcctc	ctgggttcaa	gcgattttcc	tgctcagcc	tcccagtag	ctgggattac	8160
agggtgcttg	caccataccc	ggctaatttt	gtatttttag	tagagacggg	gttacgcca	8220
gttggccaag	ctggtcgcaa	actcctgacc	tcaagtgate	cgccccctc	ggcctcccaa	8280
agtgtctggga	ttacaggcag	gagccaccac	gctcagccct	aaaatttacc	atattaacca	8340
ttttcaagtt	cagaggcatt	aaagtatact	cacattgttg	ttcaactgtc	accactactc	8400
acctgcagaa	gtttttcatc	ttgcaaaagt	aaaaccccat	acccaatttc	ccgttcttcc	8460

tctcagcccc	tggtaatcac	tattctactt	tttgtctact	ttttgtatga	atttgccat	8520
tctaggacct	aatagaagtg	gagtcaaac	tgtttgctct	tttgtggctg	gcttatttca	8580
cccggcctta	tatcctcaag	gtttatccat	gttgaggat	gcctgaattt	ccttgttttt	8640
aaggctaaat	tttattctat	tatattaata	tgtcatattt	tgtttatcct	gatggacact	8700
tgggttgatt	ccaccttttg	ccattttgaa	gaagcttcta	tgtacatgg	atacacatat	8760
atctttgggt	ctctgctttc	aatgcttttg	gggatatttc	agatgtggaa	tttctggatt	8820
ataaggcaat	tttttttttt	gagacagact	ctcgctcttg	tcgcccaggc	tagaatgtgg	8880
tgggtgtgatc	tatttttttt	ttttttttga	gatggagtct	cgctctgtcg	cccaggctgg	8940
agtgcagtgt	cacgatctca	gctcactgca	agctccgcct	cccaggttcg	tgccattctt	9000
atgcctcagc	ctcccaagta	gctgggacca	cagccgcca	ccacctcacc	cggctaattt	9060
ttgtattttt	agtagagaca	gggtttcact	atgttgcca	ggatggctc	gatctcctga	9120
cctcgtgatc	cgctgcctc	ggcctcccaa	agtgcggga	ttacaggcgt	gagccactgc	9180
acccggctgg	tgtgatcttg	gctcgctgca	acctctgcct	cccaggttca	agcgattctt	9240
gtgcctcagc	ctctccgcag	ctgggactac	aggtgtgcgc	cactgtgccc	agctactttt	9300
taaaaatata	tgtgtattta	ttatactttt	aagtctctggg	atacatgtac	agaacgtgca	9360
ggtttggttac	ataggtatac	atgtgccatg	gtggtttgct	gcacccatca	accggtcatc	9420
tacattaggt	atctctccta	atgctatccc	ttccctagcc	ctccactctc	ccggtttttt	9480
gttttggttt	gttttggttg	tttgttttta	gtagagacag	ggtctcacca	tgttgcccag	9540
gctagtcttg	aactcctgac	ctcaagtgat	ccgcccacct	cagcctccca	aagtgcggg	9600
attacagggtg	tgaccacta	cactcggcct	tattttcact	tatttatgca	attttcacta	9660
ttgctatatt	ctaggaggca	ctgtggaatt	gcactgtgga	attttagtat	tgctgtattt	9720
cagcaagcca	tgaggtctgt	cagcacacgg	ctttgggcat	tttgtgaaga	taactgatgc	9780
cagctgagcc	aaggcagggt	cctgattcca	cccactggca	ggcaccgagg	tctctgctgt	9840
tactgatggt	ttctctgtgg	attgatgggc	ttaaggccag	accacagctg	caatggctca	9900
cctctgccaa	aggccaggct	cgttggggca	gagacctatt	ccggactgag	cctcctggtg	9960
aattagagag	gtagaaaatg	ggaggacggg	ggcagggtggg	ctattacagc	gaggaaaatg	10020
cccaccctga	gttgtattag	ataacttttg	gagttcagga	actttccaat	aaagtgggtt	10080
ccacagcag	attacttact	gactccctaa	tagaaaagaag	gcaggcacag	gccgggcgtg	10140
ttgggtcatg	tctgtaatcc	cagcacgttg	ggaggctgag	gcgggtggat	cacaaggtca	10200
ggagatccag	accatcctgg	ctaacaaagt	gaaaccccg	ctctactaaa	aatacaaaaa	10260
attaggctgg	gcgtggtggc	tcgtgctgt	aatcccagca	ctttgggagg	ctgaggcggg	10320
cggatcacga	ggtcaggaga	tcgagaccgt	cctggctaac	acggtaaaac	cccactctca	10380
ctaaacatac	aaaaaaaaat	tagccagggtg	tgggtggcggg	cgctgtagt	cccagctact	10440
caggaggctg	aggcaggaga	gtggtgtgaa	ctcgggaggc	gcagcttgca	gtgagccgag	10500
actgcgccac	tgcactccag	cctgggcaac	agacagagac	tccgtctcaa	aaaaaaaaaa	10560
aaaaaataca	aaaaattagc	caggcgtggt	ggcacgtgca	cgtgactgta	gtcccagcta	10620
cttgggaggc	tgaggcagga	gaattgtttg	aaccggggag	acggaggttg	cagtgagccg	10680
agatcgcgcc	actgcactcc	agcctgggtg	acagagctag	actccgtcaa	aaaacaaaaa	10740
acaaaaaaca	aaaaaacaaa	aaaaaaaaaa	cagcagggaac	tggcaggctc	tcctgaaga	10800
gataaaaaaa	aaaaaatgca	gttgcaacac	aaaagcagcc	acagagaaaa	gcaaaccat	10860
atatggtatt	tattatgcac	cgagtgtggc	tctaactcact	tttttttttt	taattgagag	10920
acagcctggc	tctgttgatt	gggctggagt	gcagtggcgc	gaccgtagct	cattgcagcc	10980
tcaacctcct	tggtcaagc	aatcctccta	cctcagcctc	ctgagttagct	gggaccacag	11040
gtgtgagcca	ccacgcctgg	ctaattgttt	tttttttttt	tgtagagaca	gggtctcact	11100
atgtggccca	ggctggtttc	caactcctgg	gctcaagtga	tcctcccacc	tctgcctccc	11160
aaagtgcctg	ggattacagg	catgagccac	ctcgctggc	ctctagtcgc	tttatatatt	11220
ttactttaat	ccttacaaga	gccctgtgag	ctagttacag	gagcaciaat	ggaaaccaag	11280
aaacagaaaa	atztatcagc	atgactcagt	cctcagagcc	atgtatggcc	gtgtccgtgc	11340
atggcaggca	ggtcaggggc	ctggggaacg	ctgttctgga	aaccttggcc	aggccttggc	11400
acccgaggaa	tgtgcttttc	agagtttttg	tggctctttt	ccagacctgc	cctgacctct	11460
agctctggga	actatgtaag	ccaagtgcct	tccgggaagg	gagtccctct	cctggttaact	11520
ctttctgggt	aaccagatgt	ggactcatga	cacacactga	gcctacgtct	tataattttt	11580
tgtttttgtt	tttgagacag	tttcggtctt	cttgcccagg	ctggagtgca	atgggtgcgat	11640
ctcggtcac	tgcaacctct	gcctcccagg	ttcaagcgat	tctcctgcct	cagcctccct	11700
agtagctgga	attgcaggca	tgcgccacca	cgctggcta	attttttgta	tttttttttt	11760
tttagtagaa	acgggggttc	accttggttag	ccaggctggg	caccaactcc	tgacctcagg	11820
tgatccgccc	acctctgcct	cccaaagtgc	tgggattaca	ggtgtgagac	agctgtgagc	11880

caccacgccc	ggcgcatTTTT	TTTTTcttt	TTTTtcagag	ggagtgtccc	tctgtcacc	11940
aggctgaagt	gtagtggcgt	gatctcggcc	cactgtaac	tctatctccc	aggttcaagt	12000
gattctctctg	actcagcctc	ccaagtagct	gggactacag	gcgcctgcta	ccatgcctgg	12060
ctaattttt	tagttttagt	agaaaccggg	ttttgccatg	ttggccaggc	tgggtctcaa	12120
ctcttgactt	caggtgatcc	acctgccttg	gccttctgaa	gtgctgggat	tatagggcct	12180
gagccactgt	gactggccat	cttaaatttt	TTTTTTTTT	TTTTTTTTT	ttgagacagg	12240
gtttcactct	gtcgcccagg	ctggagtgc	aaggcgcgat	cttggttcac	tgcaagctcc	12300
gcctcctggg	ttcatgccat	tctcctgcct	ctgcctcatg	agtaactgag	actacaggcg	12360
cccaccacca	cgcccggtta	atttttttgt	atttttttag	tagagatggg	gtttcacctt	12420
gttagccagg	atggtctcga	tctcctgacc	tcgtgatcca	cccgctctcg	cctcccaaaa	12480
tgctggcatt	acaggcgtga	gccaccgcac	ccagccttaa	attttttttt	aagggaatc	12540
aaaccacagt	atattggggc	agtacagtgg	ctcacacctg	taattccacc	actttgggag	12600
gctgaggcag	gtgaatcacc	tgaggtcagg	agttcgagac	cagcccgga	aacatggcga	12660
aaccccgctc	ctactaaaa	taagaaaatt	agccggcggt	agtggcatgc	acctgtaatc	12720
tcagctactc	gggaagctga	ggcatgagaa	tcgcttgaa	ctgggagcag	gacgttgacg	12780
tgaaccgata	tcacaccact	gcactccagc	ctgggtgaca	gagcaagact	ctgtctcaa	12840
aaaaaaaaaga	aaaaaaaaatc	cagtgatact	tactttttaa	atttttattt	acttattttt	12900
tgctttaagt	tgaatcttta	aacttatctt	tatttttgag	acacagtctc	actctgtcgc	12960
ccaggctgga	gtgcagtgg	acaaccacag	ctcagtgcag	cgttgacctc	ctgggctcaa	13020
gccatcctcc	cgcctcagcc	tcccagtag	ctgggactac	aggcgcacac	aaccatgtcc	13080
agcttatttt	tgtatttttt	gtagagacag	ggcccactg	tgttgccctg	gcttgttctg	13140
aactcctagg	ctcaagtgat	cccccgccct	caccctccca	aagtgtggg	attacaggca	13200
tgagccacca	catccagact	tactttttt	gtttaatgtc	gcaaattggc	taaggaatgg	13260
gattcaatgg	ggacacattt	ataaacgttg	cagcagctcc	tagaacttgc	ctatccttgt	13320
aaacttctct	aggtgattgc	taattacttc	TTTTTTTTT	TTTTTTTTT	agacggagtc	13380
tcactctgtc	gcccaggctg	gagtacagtg	gcgcaatctc	gtctcactgc	aaactccacc	13440
tcccgggttc	acgccattct	cctgcctcag	cctcccaggt	agctgggact	acaggcacc	13500
gccaccacgc	cgggctaatt	ttttgtattt	TTTTttagta	gaggtgggg	ttcactgtgt	13560
tatccaggat	ggtcttgatc	tctgacctc	gtgatccacc	tgccctcagc	tcccaaagtg	13620
ctgggattac	aggcgtgagc	caccatgccc	agcccgctaa	ttatttcaat	ttgaccttga	13680
cactgagcct	gccaagtagg	ttcaagcatt	ttgatggccc	ctttacagg	tgggaaagct	13740
aattttatctg	tccaaggccg	aattctgaaa	ctgagcttta	actgccaaaa	attcttatca	13800
tcaatttctt	cttctgggtt	gggcacagtg	gtcatgcct	gtaaagccag	caatttgaga	13860
ggcatcatga	tgcaagagga	agaggattga	gtgaagctag	gagtttggga	ccagcctggg	13920
caacatagtg	agaccccatc	tataaaaaaa	aattaaaaat	tagttgggca	tgggtggtgca	13980
ctcctgtgg	cctagctatt	caggaggctg	aggtgggagg	attccttgag	cccagggttg	14040
acgctgcaga	gagctgtgat	cacgccactg	cagtccagcc	tgagtgcag	ctggaaataa	14100
tgataaataa	ataataaata	attattttaa	aaattataat	aaaaataatt	aaaaaattat	14160
tttcctgat	taatcttttt	ttttgtcctt	ctgagagttc	aatttgccc	ttttctgcct	14220
ggtctcctag	gtttccctaa	aatcctgctg	agaggttagc	actgcctgcc	aaagtcagtt	14280
tgcaaaatcc	cagagaaatc	cagcttattc	ctgggggaac	cgccaagact	gccagccct	14340
gtgtgggggt	caggcaagtt	tctcacatgt	gcctttttgg	ca		